

**WHAT IS CLAIMED:**

1. A method of switching optical signals from a plurality of input circuits to one of a  
5 plurality of output circuits using an optical switching apparatus that includes an optical  
switch having a plurality of input ports and output ports, optical amplifiers for amplifying  
the optical signals received by the input circuits, and monitor circuits for monitoring the  
optical signals outputted to the output circuits, comprising the steps of:

selecting a particular one of the plurality of monitor circuits;

10 monitoring the optical signals at the output port connected to the selected monitor  
circuit to generate a feedback signal;

selecting a particular one of the plurality of the optical amplifiers based on a  
predetermined configuration of the optical switch; and

15 amplifying the optical signals by the selected optical amplifier based on the  
feedback signal.

2. A method of switching optical signals from a plurality of input circuits to one of a  
plurality of output circuits using an optical switching apparatus that includes an optical  
switching unit having a plurality of input ports and output ports, input signal adjusting  
20 units for adjusting state of optical signals received by the input circuits, and output signal  
monitoring units for monitoring the state of the optical signals outputted to the output  
circuits, comprising the steps of:

selecting a particular one of the output signal monitoring units;

25 monitoring the optical signals at the output port connected to the selected output  
signal monitoring unit to generate a feedback signal;

selecting a particular one of the input signal adjusting units based on a  
predetermined configuration of the optical switching unit; and

30 amplifying the optical signals by the selected input signal adjusting unit based on  
the feedback signal.

3. The method as claimed in claim 2, wherein the output signal monitoring units  
monitor an amplitude of the optical signals outputted from the optical switching unit to  
generate the feedback signals.

4. The method as claimed in claim 2, wherein the output signal monitoring units monitor a differential loss among different channels outputted from the optical switching unit to generate the feedback signals.

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5. A method of switching optical signals from a plurality of input circuits to one of a plurality of output circuits, comprising the steps of:

selecting a particular one of the output signal monitoring units;

monitoring the optical signals at an output port connected to the selected output

10 signal monitoring unit to generate a feedback signal;

selecting a particular one of the input signal adjusting units based on a predetermined configuration of an optical switching unit; and

amplifying the optical signals by the selected input signal adjusting unit based on the feedback signal.

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6. The method as claimed in claim 5, wherein the output signal monitoring units monitor an amplitude of the optical signals outputted from the optical switching unit to generate the feedback signals.

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7. The method as claimed in claim 5, wherein the output signal monitoring units monitor differential loss among different channels outputted from the optical switching unit to generate the feedback signals.

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